

Remarks

This RESPONSE is in reply to the Office Action mailed August 17, 2004. The fee for addition of new claims is included herewith. A Petition for Extension of Time to Respond is also submitted herewith, together with the appropriate fee.

I. Summary of Examiners Rejections

Prior to the Office Action mailed August 17, 2004, Claims 19-24 and 37-65 were pending in the Application. Claims 1-18 and 25-36 had been previously canceled as being directed to non-elected embodiments. In the Office Action mailed August 17, 2004, the drawings were accepted with the caveat that any figures which only illustrate prior art should be indicated appropriately. The Specification was objected to for its use of incorporation by reference. Claim 19 was rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 19-22, 37-40, 43-46, 49-52, 55-58 and 61-64 were rejected under 35 U.S.C. §102(b) as being anticipated by Ramana Rao and Stuart K. Card in "The Table Lens: Merging Graphical and Symbolic Representations in an Interactive Focus+Context Visualization for Tabular Information", hereinafter Rao. Claims 23-24, 41-42, 47-48, 53-54, 59-60 and 65-66 were objected to as being dependent upon a rejected base claim, but the Examiner indicated these claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

II. Summary of Applicant's Amendments

The present Response amends the Figures and the Specification. The present Response also amends Claims 19, 37, 43, 49, 55 and 61, and adds new Claims 67-72. Applicant reserves the right to prosecute any originally presented claims in a continuing or future application.

III. Objections to the Drawings

In the Office Action mailed August 17, 2004, the drawings were accepted by the Examiner with the caveat that any figures which only illustrate prior art should be indicated appropriately.

Accordingly, Applicant has reviewed both the Specification and the Figures, and has amended Figure 1 and Figure 2 as shown on the attached replacement sheets. A marked-up copy of the original figures showing the amendments in red is also included herewith. Applicant respectfully requests that the new figures be considered and, subject to Examiner's approval, included in the Application.

IV. Objections to the Specification

In the Office Action mailed August 17, 2004, the Specification was objected to for its use of incorporation by reference. In preparing this Response, Applicant has reviewed both the Specification and the sections of the MPEP cited by the Examiner (MPEP 608.01(p)). Applicant believes that the Specification as filed contains sufficient description and detail as to enable any person skilled in the art or science to which the invention pertains to make and use the invention, and that no essential material has been omitted. As such, Applicant is unable to determine which essential material Examiner may be referring to. Applicant welcomes Examiner's input as to what specific material Examiner believes should be directly incorporated from the reference into the Specification to satisfy this requirement.

V. Claim Rejections under 35 U.S.C. 112

In the Office Action mailed August 17, 2004, Claim 19 was rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 19 has been amended to provide proper antecedent basis for the limitation "said data display." Applicant respectfully submits that Claim 19 now conforms to the requirements of 35 U.S.C. §112, and reconsideration thereof is respectfully requested.

VI. Claim Rejections under 35 U.S.C. 102(b)

In the Office Action mailed August 17, 2004, Claims 19-22, 37-40, 43-46, 49-52, 55-58 and 61-64 were rejected under 35 U.S.C. §102(b) as being anticipated by Ramana Rao and Stuart K.

Card in "The Table Lens: Merging Graphical and Symbolic Representations in an Interactive Focus+Context Visualization for Tabular Information", hereinafter Rao.

Claim 19

Claim 19 has been amended by the current Response to more clearly define the embodiment of the invention therein. As amended, Claim 19 currently defines:

19. *(Currently Amended) An interactive data analysis system, comprising:*
a display device for two-dimensional display of data having a first variable and a second variable;
a data retrieval mechanism for retrieving data and displaying it as a data display on said display device, wherein said data display is one of a scatter plot or contour plot of said data;
image display instructions for overlaying upon said data display an interactive analysis tool, said image display instructions include instructions for generating a data display region, an active axis mapped to a variable component of said data, and a focus region defining a subset of said data display region; and,
display object generation logic for mapping, via a mapping operation, the data within said focus region to one of a plurality of display objects in said active axis; and,
a user input mechanism for inputting instructions to said data analysis system to modify the operation of said focus region, said modification causes said display object generation logic to again map said data within said focus region to one of a single or plurality of display objects in said active axis.

Claim 1, as currently amended, defines a data retrieval mechanism for retrieving data and displaying it as a data display on said display device, wherein said data display is one of a scatter plot or contour plot of said data. Claim 1, as currently amended, further defines that an active axis is mapped to a variable component of said data. Applicant respectfully submits that these features are neither anticipated by nor obvious in view of the cited references.

In particular, Rao discloses the Table Lens, a technique for merging graphical and symbolic representations in an interactive focus+context visualization for tabular information. As described in Applicant's Specification, the Table Lens acts as an intelligent magnifying glass or window that

can be moved around a table of data, or a spreadsheet, by a human operator or user. As the window is moved over a section of data or a number of data cells, the underlying source data is parsed for references to additional data that is referenced or related to the visible data cells on the screen. (See also Rao, Abstract).

However, Applicant respectfully submits that Rao does not teach or suggest that the Table Lens may be employed with a two-dimensional data plot, such as with a scatter plot or contour plot. Rao describes that the Table Lens technique described therein was motivated by the particular nature of tables. (See Rao, page 1, paragraph 7). The most salient feature of a table is the regularity of its content: information along rows or columns is interrelated, and can be interpreted on some reading as a coherent text. (See Rao, page 1, paragraph 7). Applicant respectfully submits that two-dimensional data plots lack such regularity of content information as found in tables. The Data Pane is ideally suited to the analysis of these two-dimensional data plots. Each data item is initially presented on the operator's visual display as a small object, perhaps as a single pixel. During a subsequent focusing operation the Data Pane is placed over an area of the display, the area of interest within the constraints of the Data Pane window is expanded, and the related data is presented to the user in an enhanced fashion.

Furthermore, Rao describes a Table Lens that includes a graphical plot having axes. However, Applicant respectfully submits that Rao does not teach or suggest that these axes are active axes, i.e. that an active axis is mapped to a variable component of said data. As defined herein, the active axis is tied to the data item variable it represents. An action or interaction upon the active axis alters the display of that data item variable in that dimension.

In view of the above comments, Applicant respectfully submits that Claim 19 is neither anticipated by, nor obvious in view of the cited references, and reconsideration thereof is respectfully requested.

Claims 37, 43, 49, 55 and 61

The comments provided above with respect to Claim 19 are incorporated herein by reference. Claims 37, 43, 49, 55 and 61 have been similarly amended to more clearly define the

invention as including a data display, wherein said data display is one of a scatter plot or contour plot of said data. For similar reasons as given above with respect to Claim 19, Applicant respectfully submits that Claims 37, 43, 49, 55 and 61 are similarly neither anticipated by, nor obvious in view of the cited references, and reconsideration thereof is respectfully requested.

Claims 20-22, 38-42, 44-48, 50-54, 56-58 and 62-64

Claims 20-22, 38-42, 44-48, 50-54, 56-58 and 62-64 are not addressed separately but it is respectfully submitted that these claims are allowable as depending from an allowable independent claim and further in view of the comments provided above. Applicant respectfully submits that these are similarly neither anticipated by, nor obvious in view of the cited references, and reconsideration thereof is respectfully requested. It is also submitted that these claims also add their own limitations which render them patentable in their own right. Applicant reserves the right to argue these limitations should it become necessary in the future.

VII. Allowable Subject Matter / Additional Amendments

Claims 67-72 (Claims 23-24, 41-42, and 65-66)

In the Office Action mailed August 17, 2004, Claims 23-24, 41-42 and 65-66 were objected to as being dependent upon a rejected base claim. However, the Examiner indicated these claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Accordingly, Claims 23-24, 41-42, and 65-66 have been rewritten in independent form and are presented as new Claims 67-72 respectively. Applicant respectfully submits that new Claims 67-72 should be allowable, and allowance thereof is requested.

VIII. Conclusion

In light of the above, it is respectfully submitted that all of the claims now pending in the subject patent application should be allowable, and reconsideration thereof is respectfully requested. The Examiner is respectfully requested to telephone the undersigned if he can assist in any way in expediting issuance of a patent.


Application No. 10/043,371
Amendment/Response dated: February 17, 2005
Reply to OA dated: August 17, 2004

A Petition for Extension of Time is enclosed herewith, together with the appropriate fee, to extend the time within which to respond until February 17, 2005.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 24-0037 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

Date: February 17, 2005

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In the Figures:

Please replace Figure 1 and Figure 2 with the replacement figures as shown on the attached replacement sheet. A marked-up copy of the original figures showing the amendments in red is also included herewith. Applicant respectfully submits that no new matter is being added by this Amendment.



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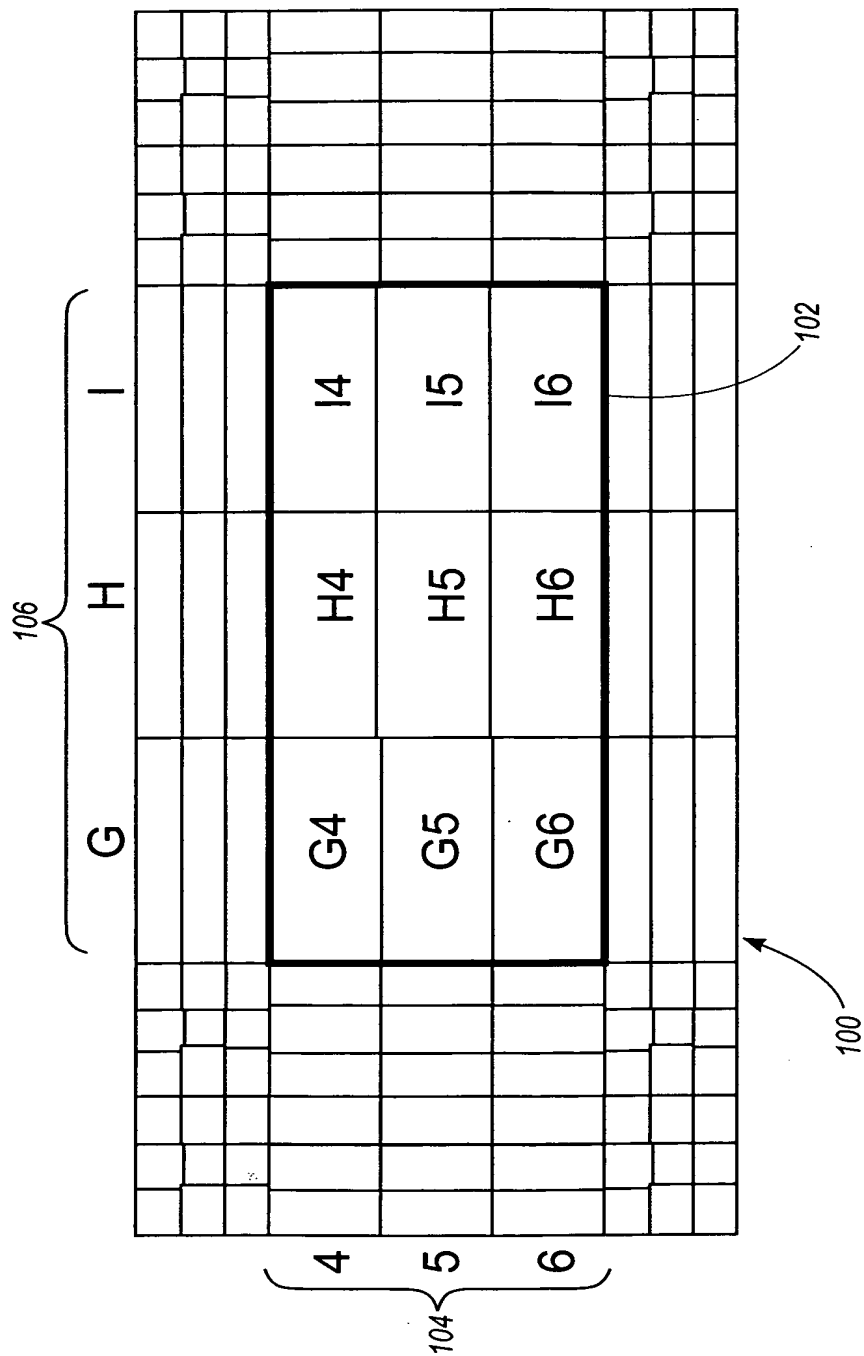


FIG. 1
PRIOR ART



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League	Players	Home Runs	At Bats	Hits
National				
American				

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League	Players	Home ...	At Bats	Hits
National	Dale Murphy	29	614	163
	Eric Davis	27	415	115
	Darryl Strawberry	27	475	123
American	Jesse Barfield	40	589	170
	Dave Kingman	35	561	118
	Gary Gaetti	34	596	171

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FIG. 2

PRIOR ART